REMARKS

Claims 1-57 were presented for examination.

Claims 1-57 were rejected.

Applicant is hereby presenting remarks directed to the outstanding rejections. Applicant is amending claims 47 and 48 to correct a typo.

Reconsideration of this application, and allowance of all pending claims, claims 1-57 as amended, are hereby respectfully requested.

Substance of the interview.

Applicant thanks the Examiner for his time in conducting a telephone interview on Aug. 23, 2007. During the telephone interview, the Examiner, the two inventors Naidu Annamaneni and Sarang Bhavsar, and Applicant's attorney Mike Farn discussed claim 1 with respect to the main cited reference Burdick (5,889,674) and the rejections outstanding in the Examiner's office action. In particular, the concepts of "status updates" vs "transactions," and the step of identifying transactions based on comparing status update was discussed. Dependent claims 4, 19, 20 and 26 were also discussed. Applicant's understanding is that agreement was reached that claims 4, 19, 20 and 26 were patentable over the cited references, and that the Examiner would further consider Applicant's arguments with respect to claim 1. The issues discussed during the interview are summarized below.

Claims 1-57: Even if Burdick's database contains information about transactions, it does not identify those transactions by comparing WIP status updates.

Claims 1-57 were rejected primarily under 35 U.S.C. § 102(b) in light of Burdick (5,889,674). Some dependent claims were rejected under 35 U.S.C. § 103(a) in light of Burdick in combination with various secondary references. Applicant respectfully traverses these rejections.

Claim 1 recites "identifying transactions based on a comparison of the WIP status updates with a previous WIP status for the semiconductor product" (emphasis added). The mere presence of transactions data is not enough to meet all of the limitations of claim 1. Claim 1 further requires that the transactions be identified by comparing WIP status updates. Even if Burdick's database contains transactions data, those transactions were not identified by comparing WIP status updates, as is required by claim 1.

In more detail, consider first the difference between status updates and transactions. As described in par [0009] of the Application, "WIP updates can be broadly divided into two types: 'status' and transactional. WIP status updates typically include a set of records, one for each lot in the supplier's system. These records represent the current status, or 'state,' of each lot at a specified point in time. WIP transactional updates provide a chronological series of transactions, which represent the 'changes in state' that have affected lots in the supplier's system."

Par's [0010]-[0013] describe some of the drawbacks of WIP status updates, as they are commonly used in the semiconductor industry. With reference to Figs. 2 and 3 of the Application, the semiconductor industry has evolved to a point where it is not uncommon for a single customer to use multiple suppliers to produce the customer's semiconductor product. The customer would like to track (or have a third party track) the progress of the semiconductor

product through various suppliers. However, most suppliers provide status updates, rather than transactional updates, because it is simpler and cheaper for the suppliers to do so. However, modern information systems are typically built upon a transaction processing model. Therefore, there is a need to convert the WIP status updates provided by suppliers into a transactional form that can be used by transactional enterprise systems.

Claim 1 captures many of these concepts. In relevant part, claim 1 recites "receiving WIP status updates for a semiconductor product from at least one supplier in a supply chain for the semiconductor product." This element expressly recites that <u>WIP status updates</u> (as opposed to transactional updates) are received from an <u>external third party</u> (i.e., the supplier, as opposed to a system used to track one's own internal semiconductor manufacturing process). Claim 1 further recites "identifying transactions based on a comparison of the WIP status updates with a previous WIP status for the semiconductor product." This element expressly requires the identification of transactions based on a comparison of WIP status information. In this way, the conversion from status updates to transactions can be effected. Fig. 3 shows one particular implementation of a virtual manufacturing system 116 that achieves this.

Dependent claim 4 further recites the use of a generalized form. WIP status updates from different suppliers may use different models of the semiconductor fabrication process. Converting these WIP status updates to a common generalized form can make the identification of transactions simpler and/or more reliable. Fig. 4 of the Application shows one example of this process.

Dependent claim 26 expressly recites the use of a transactional enterprise system.

Dependent claims 19 and 20 recite specific processes for identifying transactions based on comparing WIP status updates.

Burdick does not teach of disclose any of these limitations. With respect to claim 1, Burdick does not "identify transactions based on a comparison of the WIP status updates with a previous WIP status for the semiconductor product." Rather, transaction information, to the extent that it is used, is already present in Burdick's database, typically contained in the LOT table (see Fig. 4A in Burdick) and/or in the LOT_GENEALOGY table (see Fig. 4E in Burdick). This information presumably is entered by a data entry operator or could be entered directly from the manufacturing floor. Regardless of the specific method used by Burdick, Burdick does not "identify transactions based on a comparison of the WIP status updates with a previous WIP status for the semiconductor product" as required by claim 1.

Consider an example where a single lot A with 25 wafers is split into two lots A.1 and A.2, with 12 and 13 wafers, respectively. According to claim 1, three WIP status updates might be received: one listing lot A with 25 wafers at a certain step in manufacturing, another listing lot A.1 with 12 wafers at another step in manufacturing, and a third listing lot A.2 with 13 wafers. In claim 1, these WIP status updates could be compared and, based on this comparision, a SPLIT transaction is identified. Specifically, Lot A is SPLIT into two lots: A.1 with 12 wafers and A.2 with 13 wafers. See also items 910 and 920 in Figs. 9-11 of the Application for an illustration of this.

In contrast, Burdick's database does not compare WIP status updates. Instead, one row in the LOT_GENEALOGY table expressly states that Lot A.1 (the lot_sk field) descended from Lot A (the prior_lot_sk field) and 12 of the wafers from Lot A.1 came from Lot A (the qty_from_prior_lot field). A second row in the LOT_GENEALOGY table expressly states that Lot A.2 (the lot_sk field) descended from Lot A (the prior_lot_sk field) and 13 of the wafers from Lot A.2 came from Lot A (the qty_from_prior_lot field). The user can run queries against

this previously stored information but, more importantly, this information is not derived based on a comparison of WIP status updates, as is recited in claim 1.

Burdick also does not teach of disclose the use of generalized forms for this purpose (dependent claim 4), the use of transactional enterprise systems (dependent claim 26) or specific processes for identifying transactions based on comparing WIP status updates (for example, claims 19 and 20). Nor do any of the other cited references overcome the fundamental deficiencies in Burdick.

Independent claim 30 contains limitations similar to those in claim 1.

Therefore, Applicant respectfully submits that all pending claims 1-57 as amended are patentable over the cited references.

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Closing

Applicant believes that the application is in condition for allowance of all claims herein, claims 1-57 as amended, and therefore an early Notice of Allowance is respectfully requested. If the Examiner believes that for any reason direct contact with Applicant's attorney would help advance the prosecution of this case to finality, the Examiner is invited to telephone the undersigned at the number given below.

Respectfully submitted,

Date: _Sept. 4, 2007_   By: _/Michael W. Farn /_

Michael W. Farn
Attorney for Applicant
Registration No. 41,015

Fenwick & West LLP
Silicon Valley Center
801 California Street
Mountain View, CA 94041
(650) 335-7823 (Tel)
(650) 938-5200 (Fax)